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09/900,522	07/06/2001	Robert M. Bond	7784-000260	3994

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EXAMINER

CHARIOUI, MOHAMED

ART UNIT PAPER NUMBER

2857

DATE MAILED: 06/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Applicati n No.

09/900,522

Applicant(s)

BOND ET AL.

Examiner

Mohamed Charioui

Art Unit

2857

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 April 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13, 15, 17 and 19-21 is/are rejected.
- 7) ☒ Claim(s) 3, 14, 16 and 18 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All   b) ☐ Some \*   c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_                      6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Objections*

1. **Claim 3** is objected to because of the following informalities: in page 32, line 18, change "The method of claim 2, the method of claim 2," to – The method of claim 2,--.

Appropriate correction is required.

**Claim 14** is objected to because of the following informalities: in page 37, lines 9 and 10, the limitation "a weight summaries module responsive to said information generated by said for determining" is incomplete.

Appropriate correction is required.

Examiner considers the limitation to be "a weight summaries module responsive to said information generated by said **loads** for determining" for examination.

**Claim 16** is objected to for the following informalities: in page 37, line 18, change "at least factor" to –at least one factor--.

Appropriate correction is required.

### *Claim Rejections - 35 USC § 112*

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

**Claim 6** is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Applicant did not point in the claim what is being calculated from the parameters.

Art Unit: 2857

**Claims 11, 12, 19-21** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "quantities" in claim 11, 12, 19-21 is a relative term which renders the claim indefinite. The term "quantities" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably appraised of the scope of the invention. It is unclear from the claim language what quantities of the specific components for the EPGDS are to be determined.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

**Claims 1-6, 8-12, 15-17 and 19-21** are rejected under 35 U.S.C. 102(e) as being anticipated by Shenk.

**As per claim 1**, Shenk teaches a method for determining and evaluating attributes and components of a subsystem of an aircraft (see col. 2, lines 1-20); providing a module for allowing an individual to enter a plurality of parameters related to an aircraft with which the subsystem is to be used (see col. 4, lines 9-24); from said parameters, calculating and displaying information relating to a plurality of attributes of the subsystem comprising one of the group of factors of reliability, dependability, costs and maintainability (i.e. aerodynamic performance) (see col. 4, lines 25-46).

**As per claim 2**, Shenk further teaches providing the information to the individual in a plurality of fields of a screen displayed on a computer display screen; and allowing the user to override selected portions of the information with user selected values; and using the method to re-calculate the attributes of the system (see col. 6, lines 8-40).

**As per claim 3**, Shenk further teaches the step of allowing the user to lock-in selected portions of the information, where after the lock-in portions of information are not changed when the method is used to re-calculate the attributes of the system (see col. 7, lines 7-48 and col. 7, line 64 to col. 8, line 11).

**As per claims 4, 8 and 15**, Shenk further teaches step of entering a plurality of parameters comprises the step of entering at least the number of engines of the aircraft and the step of allowing the individual to select from one of a plurality of electrical system architectures (i.e. power settings) for said aircraft prior to using said method to calculate said information (see col. 4, lines 25-46).

**As per claim 5**, Shenk further teaches entering at least the maximum takeoff weight of the aircraft (see col. 8, lines 29-44 and col. 10, lines 59-65).

**As per claims 9-12**, Shenk teaches a program for determining and evaluating attributes and components of a subsystem of an aircraft (see col. 2, lines 3-26); an airplane parameters module for allowing an individual to enter a plurality of parameters related to an aircraft with which the subsystem is to be used (see col. 4, lines 9-24); a configuration module for allowing the individual to enter a plurality of parameters relating to a construction of the aircraft and electrical power and distribution system parameters (see col. 4, lines 9-24 and col. 6, lines 41-59); and a system attributes module responsive to information from the configuration module for generating information relating to at least one of the group comprising dependability, costs, reliability and maintainability (see col. 6, lines 41-59) and for displaying said information on display screen.

**As per claim 17**, Shenk further teaches system attributes module predicts reliabilities for specific ones of the EPGDS components; and wherein the predicted reliability is provided for flight control (see col. 5, lines 49-67).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 7 and 13** are rejected under 35 U.S.C. 103(a) as being unpatentable over Shenk in view of Brittan et al.

Shenk teaches the system as stated above except for using an electronic data dictionary, accessible by the individual, to allow the individual to reference explanations and formulas relating to the information calculated by the method.

Brittan et al. teach this feature (see col. 12, lines 26-36 and Fig. 12). It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate Brittan et al.'s teaching into Shenk's invention, because it would allow the user to reference explanations and formulas used to determine the information relating to the plurality of attributes; therefore, the user would make certain that the results obtained correspond to the intended parameters entered and that the information calculated are accurate.

***Allowable Subject Matter***

5. **Claims 14, 16 and 18** is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims and overcoming the claims objections.

The following is a statement of reasons for the indication of allowable subject matter:

**As per claim 14**, none of the prior art of record teaches or suggests a generation module responsive to information generated by the loads and architecture modules, for sizing the components of the EPGDS and displaying information relating thereto on a

Art Unit: 2857

display screen; and a weight summaries module responsive to the information generated by said loads for determining, summarizing and totaling the individual weights associated with said EPGDS components.

**As per claim 16**, none of the prior art of record teaches or suggests system attributes module further provides a dependability cost summary for summarizing a cost of at least one of the eight listed factors.

**As per claim 18**, none of the prior art of record teaches or suggests that the system attributes module predicts and displays maintainability for specific ones of the EPGDS components; and wherein the maintainability comprises: maintenance times including main time between unscheduled repair (MTBUR) at least one of said EPGDS components; maintenance preparation times for a plurality of tasks associated with performing maintenance on the at least one EPGDS component; and inherent availability of the at least one EPGDS component.

#### **Prior art**

6. The prior art made record and not relied upon is considered pertinent to applicant's disclosure:

**Rashid ['147]** discloses digital voltage regulator.

**Blomberg et al. ['881]** disclose Process for developing a statistical model to determine the workload of an aircraft Pilot, model derived therefrom, apparatus for embodiment of the said process and applications of the model.

**Krist et al. ['540]** disclose System for real-time economic optimizing of manufacturing process control.



Art Unit: 2857

**Baldwin ['695]** discloses Method and apparatus for predicting and monitoring aircraft takeoff performance.

**Parro ['043]** disclose Generic control unit.

**Pickett ['317]** discloses method and apparatus for generating mathematical functions.

**Handa et al. ['867]** disclose graph display apparatus for displaying different graphs of a functional formula based on inputted coefficient data.

**Sinex ['459]** discloses dynamic aircraft maintenance management system.

**Miller ['605]** discloses weight and balance computer apparatus for aircraft.

#### **Contact information**

7. Any inquiry concerning this communication from examiner should be directed to Mohamed Charioui whose telephone number is 703 605-4362. The examiner can normally be reached Monday to Friday 9 am to 6 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc S. Hoff can be reached at 703 308-1677. The fax phone number for the organization where this application is assigned is 703 305-3431.

Any inquiry of a general nature or relating to the status of this application should be directed to the group receptionist whose number is 703 308-0956.

Mohamed Charioui

5/30/03

